This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) A discharge circuit for a pulsed gas laser system, comprising:

a pair of electrodes wherein an area between said pair of electrodes defines a gas discharge area;

a ~~capacitance~~ capacitor and a load in series and coupled to a first electrode of said pair of electrodes such that the load is disposed between the capacitor and the first electrode;

a high voltage pulsed generator coupled to said ~~capacitance~~ capacitor, wherein the capacitor operates ~~configured~~ to receive a charge from the high voltage pulsed generator and to store the charge, and to then apply the charge to the first electrode where it is ~~which is~~ discharged through the electrodes, and the load ~~configured~~ operates to dissipate energy transmitted through it as a result of a discharge in the gas discharge area.

2. (original) The circuit of claim 1 wherein said load includes a resistor.

3. (previously amended) The circuit of claim 2 wherein said resistor has a value comparable to a wave impedance of a gas discharge electrical loop.

4. (original) The circuit of claim 2 wherein said resistor has a value comparable to an active impedance of the gas discharge during a maximum discharge current phase.

5. (original) The circuit of claim 1 further including a cooling unit, said load provided in said cooling unit.

6. (currently amended) The circuit of claim 5 wherein said cooling unit is provided in a pulsed power module of [[a]] the laser system, and wherein the pulsed power module contains the high voltage pulsed generator.

7. (original) The circuit of claim 5 wherein said cooling unit includes one of an air fan and an encapsulated volume with circulating oil.

Claim 8. (previously canceled)

9. (previously amended) The circuit of claim 1 wherein said gas discharge area is configured to provide ionization of a laser gas during the charging of said capacitance.

10. (currently amended) The circuit of claim 1 wherein said ~~capacitance~~ capacitor includes a peaking capacitor.

11. (currently amended) The circuit of claim 1 wherein said pair of electrodes, said ~~capacitance~~ capacitor and said load form an electrical loop.

12. The circuit of claim 1 wherein said load includes an active load.

Claims 13 –14. (canceled)

15. (currently amended) The circuit of claim 1 further including a ground terminal coupled to said ~~capacitance~~ capacitor.

16. (currently amended) A discharge circuit, comprising:

a pair of discharge electrodes, a region between said pair of electrodes defining a gas discharge region;

a peaking capacitor and a resistor in series, wherein the peaking capacitor and the resistor are coupled to a first discharge electrode of the pair of electrodes, and the resistor is disposed between the first electrode and the capacitor;

~~coupled to said pair of discharge electrodes, said peaking capacitor configured~~ a high voltage pulse generator coupled to the peaking capacitor, wherein the peaking capacitor operates to store a charge received from the high voltage pulse generator ~~charge~~

which is then discharged through the discharge electrodes, and said resistor configured to dissipate energy transmitted through it as a result of a discharge in the gas discharge region ~~area~~; and

a ground terminal coupled to said peaking capacitor and a second electrode of said pair of discharge electrodes;

wherein said pair of discharge electrodes, said peaking capacitor and said resistor form an electrical loop.

17. (original) The circuit of claim 16 further including a cooling unit for cooling said resistor.

Claim 18. (canceled)

19. (original) The circuit of claim 16 wherein said gas discharge area includes high pressure laser gas.

Claim 20. (previously canceled)

21. (currently amended) A discharge circuit for use in a laser system, comprising:

a pair of discharge electrodes, an area between said pair of electrodes defining a gas discharge area;

a first peaking capacitance coupled between a first electrode of the pair of discharge electrodes and a ground terminal ~~to said electrodes,~~ said first peaking ~~capacitor~~ capacitance configured to store a charge;

a second peaking capacitance, different from said first peaking capacitance, and a resistor in series, and the second peaking capacitor and the resistor coupled ~~to~~ between the first electrode and the ground terminal ~~one of said pair of electrodes~~, and wherein the resistor is disposed between the first electrode and said second capacitor configured to store a charge which is discharged through the discharge electrodes, said resistor configured to dissipate energy transmitted through it as a result of a discharge in the gas discharge area; and

a high voltage pulse generator which is coupled to the second peaking capacitor to apply a voltage to the second peaking capacitor. ~~a ground terminal coupled to said first and second peaking capacitors;~~

~~wherein said pair of discharge electrodes, said first and second peaking capacitors and said resistor form an electrical loop.~~

22. (original) The circuit of claim 21 further including a cooling unit for cooling said resistor.

Claim 23. (canceled)

24. (original) The circuit of claim 21 wherein said gas discharge area includes high pressure laser gas.

Claims 25-38. (canceled)

39. (currently amended) An excimer or molecular fluorine laser, comprising:

a discharge chamber filled with a gas mixture including a halogen component, the discharge chamber also including a pair of main discharge electrodes;

a pulsed discharge circuit coupled to the pair of main discharge electrodes;

wherein the pulsed discharge circuit includes:

a main storage capacitor coupled to a pulse compression circuit;

a ~~set of~~ peaking ~~capacitors~~ capacitor and a resistive component in series, and wherein the peaking capacitor and the resistive component are coupled to a first discharge electrode of the pair of main discharge electrodes, such that resistive component is disposed between the peaking capacitor and the first discharge electrode;

wherein an output of the pulse compression circuit is coupled to the peaking capacitor ~~to the pulse compression circuit and the main discharge electrodes,~~ such that a charge is transferred from the pulse compression circuit and then stored in the ~~set of~~ peaking ~~capacitors~~ capacitor and then discharged in the main discharge electrodes; and

wherein ~~a resistive component coupled to the set of peaking capacitors and the discharge electrodes, such that~~ the resistive component dissipates energy transmitted through it as a result of a discharge between the main discharge electrodes; and

wherein the peaking capacitor includes a plurality of capacitors connected to each other in parallel.

40. (currently amended) The laser of claim 39, further comprising a second ~~set of~~ peaking ~~capacitors~~ capacitor coupled to the pulse compression circuit and the first discharge electrode ~~main discharge electrodes~~.

41. (currently amended) The laser of claim 40, wherein a first electrical connection between the ~~first set of~~ peaking capacitor ~~capacitors~~ and the first ~~main~~ discharge electrode ~~electrodes~~ has a different inherent inductance than a second electrical connection between the second ~~set of~~ peaking capacitor ~~capacitors~~ and the first discharge electrode ~~electrodes~~.

42. (original) The laser of claim 39, wherein the resistive component includes a resistor.

43. (original) The laser of claim 39, wherein the resistive component includes a resistor and a variable inductor.

Claims 44-45. (canceled)

46. (currently amended) A method for providing an electrical pulse to discharge electrodes of an excimer or molecular fluorine laser, comprising the steps of:

charging a main storage capacitor of a pulsed gas discharge excitation laser system;

discharging an electrical charge from the main storage capacitor through a pulse compression circuit to a peaking capacitance coupled with the discharge electrodes as an electrical pulse; and

storing the electrical charge in the peaking capacitance, and then transmitting the electrical charge from the peaking capacitance to the discharge electrodes, whereby the electrical charge is discharged between the discharge electrodes;

providing a load coupled between a first electrode of the discharge electrodes, and the peaking capacitance;

dissipating an ~~the~~ energy of ~~the~~ an electrical pulse resulting from the transmitting of the electrical charge to ~~through~~ the discharge electrodes in ~~and an~~ the ~~additional~~ load coupled between the peaking capacitance and the first electrode of the discharge electrodes,

wherein the dissipation through the additional load stabilizes the current through the discharge electrodes.

47. (currently amended) The method of claim 46, wherein the discharging step includes discharging the main capacitor to the ~~through a first~~ peaking capacitance and a second peaking capacitance, wherein, of the ~~first~~ peaking capacitance and the second peaking ~~capacitances~~ capacitance, the ~~additional~~ load is coupled only between the ~~first~~ peaking capacitance and the first electrode of the discharge electrodes.

Claims 48-51. (canceled)

52. (currently amended) A pulsed gas laser system, comprising:

a laser tube including a first electrode and a second electrode and laser gas; and

a ~~capacitance~~ capacitor and a load in series, and wherein the capacitor and load are coupled between [[to]] the first electrode and ground, wherein the ~~capacitance~~ load is disposed between the capacitor and the first electrode;

a pulse compression circuit which is coupled to the capacitor, and operates to apply a voltage to the capacitor, and wherein the capacitor operates to store electrical energy and apply the stored electrical energy to the first electrode; and ~~is coupled to receive a charge from a pulse compression circuit, and to discharge the charge through the fist and the second electrode, and~~

wherein the load operates to dissipate streamers generated by a glow discharge of the laser tube which results when stored electrical energy from the capacitor is applied to the first electrode; and

wherein the capacitance and the load are located out of the laser tube.

53. (previously added) The system of claim 52 further comprising a cooling apparatus which cools the load.

54. (previously added) The system of claim 52 wherein the load includes a resistor.

55. (currently amended) The system of claim 54 wherein the resistor has a value comparable to a wave impedance of a gas ~~said~~ discharge ~~circuit~~ loop.

56. (currently amended) The system of claim 54 wherein the resistor has a value comparable to an active impedance of [[the]] a gas discharge during a maximum discharge current phase.

57. (currently amended) The system of claim 52 wherein the load is positioned in [[the]] a pulsed power module, wherein the pulsed power module contains the pulse compression circuit.

58. (previously amended) The system of claim 52 wherein the cooling apparatus includes a first fan which is disposed outside of the laser chamber, and positioned to cool the load.

59. (previously amended) The system of claim 58 further including a second fan disposed in the laser chamber for circulating laser gas in the laser chamber.

60. (previously amended) The system of claim 52 wherein the load is encapsulated volume with circulating oil.